

▶ DEQ's Voluntary Cleanup Program



OKLAHOMA
Environmental
Quality

Voluntary Cleanup Program



Preliminary Meeting & Review Existing Data



Voluntary Consent Order



Work Plan for Site Characterization



Characterization Report & Data Gaps Determination



Feasibility Study



Proposed Plan



Decision Document



Remedial Action Plan

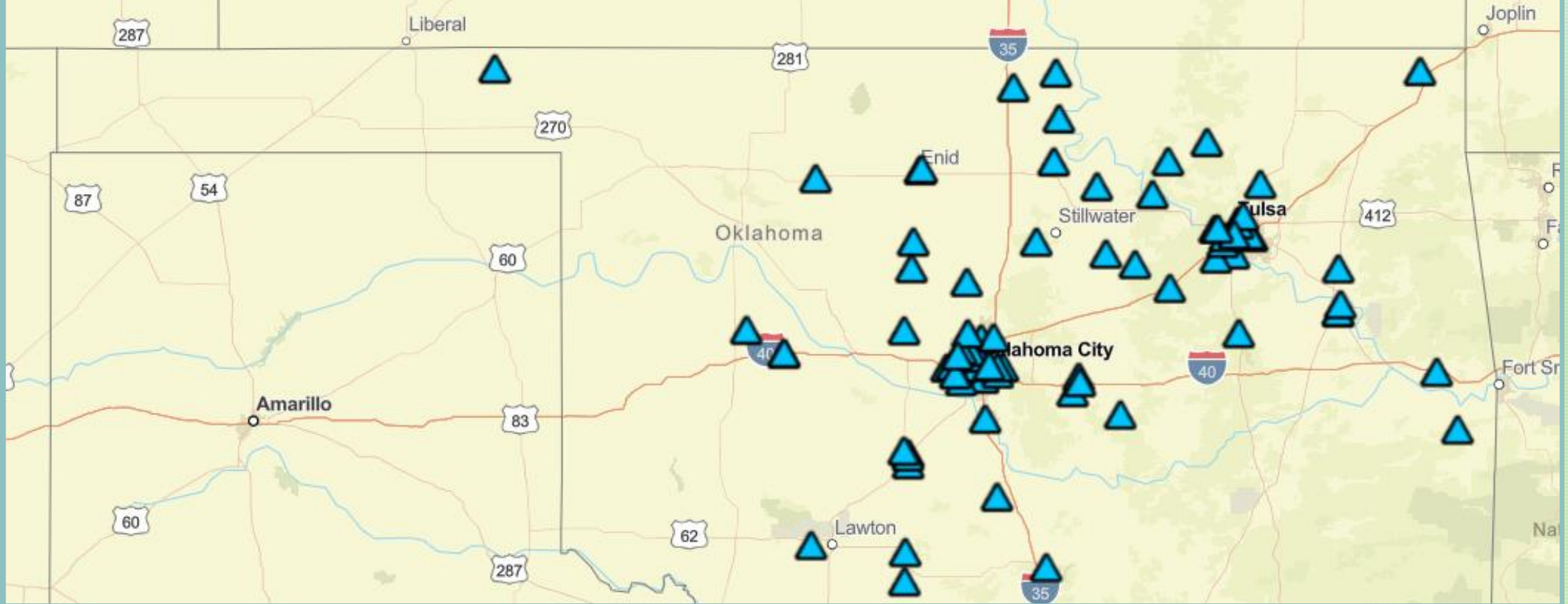


Cleanup

*Community engagement
based on public interest*



Final Inspection Report & Notice of Remediation



VCP Sites



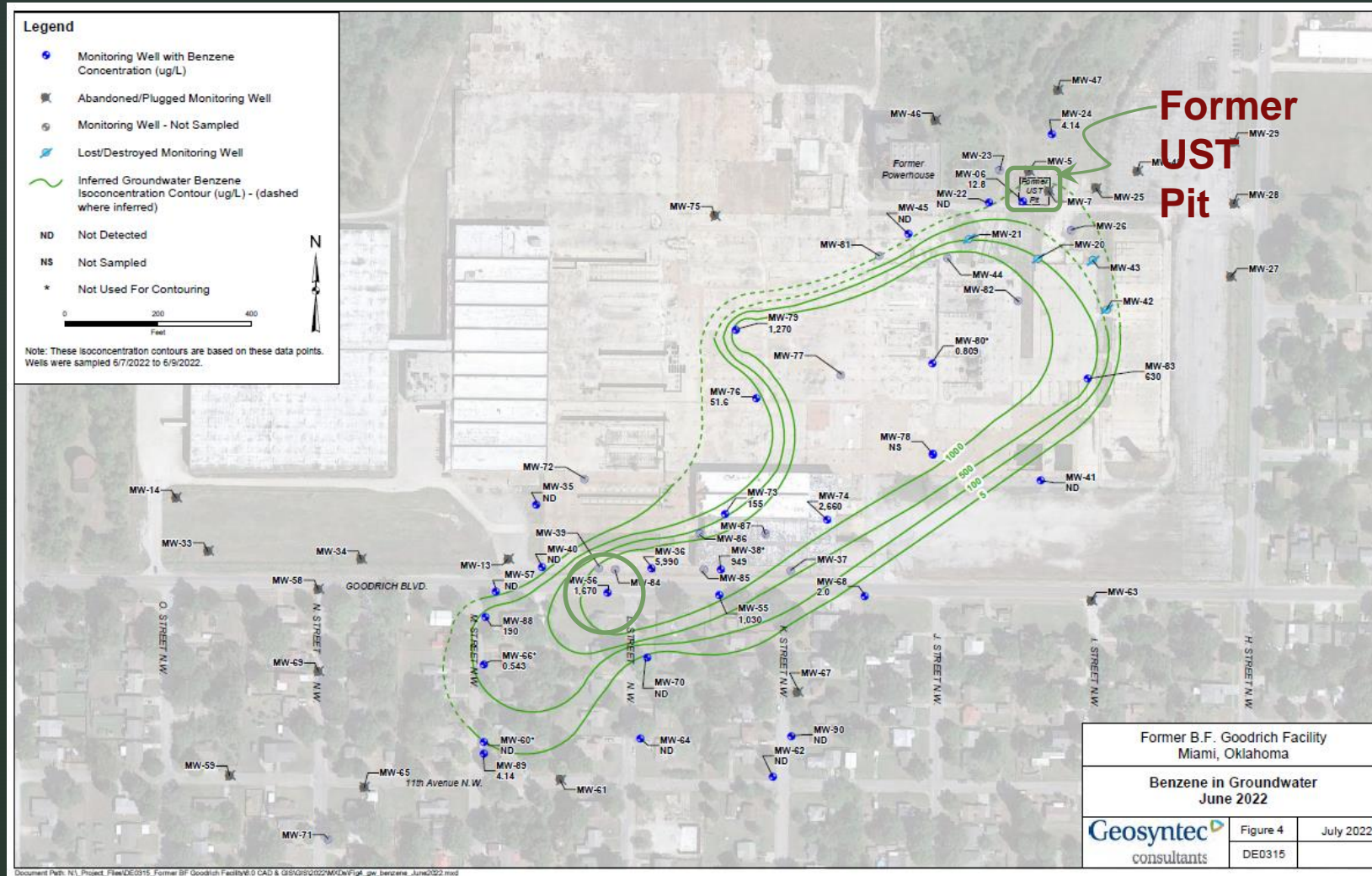
2022-2023 Remediation Accomplishments



BFG Miami

- Tire manufacturing 1940s-1986
- ~350 acres (assessment area ~60 acres)
- Currently owned by Ottawa County
- Michelin North America joined VCP in 1997
- Primary COC: Benzene (GW)
- Secondary COCs: Asbestos (Air), Mineral spirits LNAPL
- In 2019, U.S. EPA removed about 23,000 tons of asbestos containing debris

2022 Extent of Benzene Plume in Shallow Groundwater



BFG Miami - 2022-2023 Remedial Activities

- Installation of multi-phase extraction and air sparging system
- System will extract and treat contaminated groundwater at the site





Kist Peanut

- Former petroleum refinery early 1900s
- Peanut processing plant 1950s
- 32 acres
- Currently owned by City of Okmulgee
- Joined VCP in 2010
- Mostly TPH, with arsenic, lead, chromium, benzo(a)pyrene, low pH
- Estimated 49,000 tons of waste and 250 tons of contaminated material to be removed



Kist Peanut

- Public Meeting Fall 2022
- Collaboration between OXY, DEQ, Tribes, and City of Okmulgee
- Implementing DEQ approved clean-up plans
- Removing impacted waste areas, disposing at landfill, replaced with clean soil, and seeded
- Site cleanup expected to complete in June 2023



Halliburton Osage Road - Duncan

- Former missile/motor casing cleaning operation
- ~ 160 acres
- Currently owned by Halliburton
- Joined VCP in 2011
- Primary COC: Perchlorate (soil/GW)
- Secondary COCs: Nitrate (GW), RDX
- At burn pits and evaporation ponds

Missile Motor Casing

W Osage Road

Burn Pit C

Burn Pit B

Grout Pond

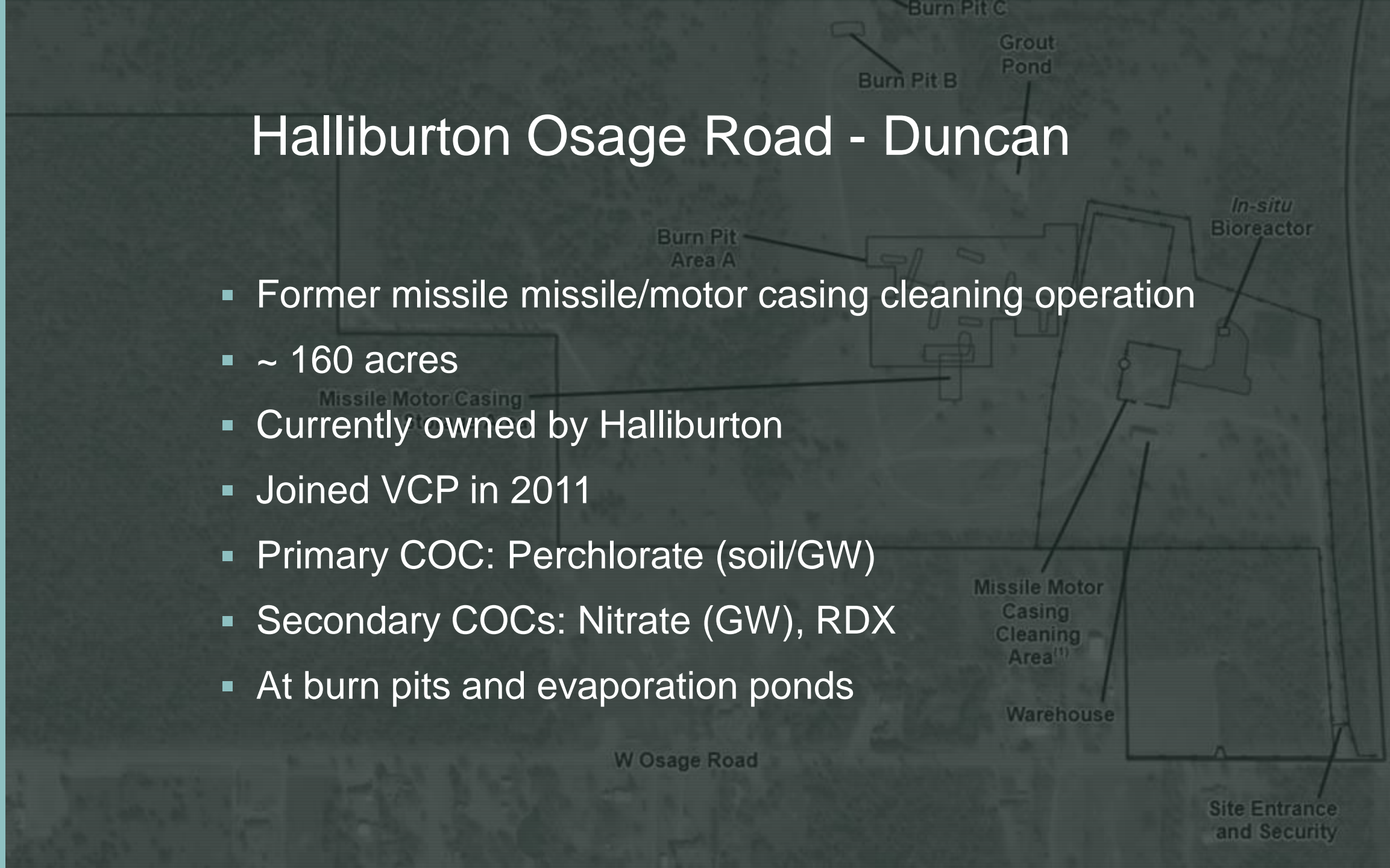
Burn Pit Area A

In-situ Bioreactor

Missile Motor Casing Cleaning Area⁽¹⁾

Warehouse

Site Entrance and Security





Halliburton Osage Road

- GW Monitoring and Offsite Remediation
 - Extraction to stop migration of plume
- New Onsite IRM Pilots
 - Biodegradation to develop and maintain reducing conditions in the treatment zone
 - Engineered wetland
 - Bioreactors

VCP Resources

- <https://www.deq.ok.gov/land-protection-division/cleanup-redevelopment/voluntary-cleanup/>
- vcpsubmittals@deq.ok.gov
- <https://deq.maps.arcgis.com/>
- Jon Reid – VCP Manager
405-702-5121



Fansteel Metals

NUMBER TEN TANTALUM PLACE
MUSKOGEE, OKLAHOMA 74401

PRODUCTION of TANTALUM & COLUMBIUM



Superfund Update

- March 29, 2023 - EPA published a proposed rule in the Federal Register, proposing to add the Fansteel site in Muskogee to the National Priorities List (NPL)

Fansteel Metals/FMRI

- Nuclear Regulatory Commission (NRC) licensed site, operated from 1957 to 1989
- Fansteel filed for bankruptcy in 2002 and 2016, and there is not enough money to complete decommissioning/cleanup nor maintain the site
- We expect the site to go final on the NPL in September 2023

